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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/883,278	06/19/2001	Koji Sakai	1248-0544P-SP	9443
2292	7590	05/23/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH			HO, DUC CHI	
PO BOX 747			ART UNIT	
FALLS CHURCH, VA 22040-0747			PAPER NUMBER	
			2665	

DATE MAILED: 05/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/883,278

Applicant(s)

SAKAI ET AL.

Examiner

Duc C. Ho

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12, 15, 18 and 19 is/are rejected.
- 7) ☒ Claim(s) 13, 14, 16, 17, 20 and 21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6/19/01 & 3/10/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102(e) that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2. Claims 1-12, 15, 18, and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Sturm (U.S. 6,581,114).

Regarding claim 1, Sturm discloses method and system for synchronizing serial data.

*When the information signal consecutively repeats a single pattern* (An A side transmitter-fig. 2 sends a 8b10b code as a single pattern to a B side receiver-fig. 2, see col. 4, lines 36-54), *a different pattern is inserted between the same patterns before transmitting the single patterns* (if the B side receiver-fig. 2 loses word synchronization, the A side transmitter would correct the situation by sending an 8b10b comma code-group to the B side receiver, see col. 4-line 36 to col. 5-line 11).

Regarding claim 2, the communication system in figure 2 includes two devices.

Regarding claim 3, when the 8b10b code is transmitted from the A side transmitter, the comma code-group occasionally (randomly) is used (inserted) to maintain word synchronization, see col. 3, lines 51-63.

Regarding claim 4, the A side transmitter is capable of inserting the comma code-group at fixed interval.

Regarding claim 5, the comma code is selected among a certain code words defined in the 8b10b code, and the code could be programmed to be selected at random, see col. 3, lines 51-63.

Regarding claim 6, the 8b10b code is a code employed to identify the boundaries of the data words, see col. 3, lines 13-62.

Regarding claim 7, the comma code is defined differently from the 8b10b code.

Regarding claim 8, the 8b10b code, in other words, is a code indicative of a stand-by-state, since it identifies location of word boundaries.

Regarding claim 9, multi-bit words can be communicated one after the other along the serial line. It is up to the receiver to discern which bits (and its time period) belong to each word. Similarly, the time period between the receiving the data and the code in terms of bits is different from each other.

Regarding claim 10, since 8b10b code is a 8bit to 10bit code, therefore, when the 10 bit code is received in a time period for receiving the code identifying the boundaries of words, the previous 8 bit code representing status information is maintained.

Regarding claim 11, Sturm discloses the code is the 8b10b code.

Regarding claim 12, the 8b10b code is changed into the comma code at the same transmission timing for transmission.

Regarding claim 15, this claim has similar limitations as claim 1. Therefore, it is rejected under Sturm for the same reasons set forth in the rejection of claim 1. The 8b10b codes includes "0" and "1" bits, wherein when a single pattern of 8b10b code is used, comma codes are used or inserted occasionally (randomly) to maintain word synchronization, see col. 3, lines 51-63.

Regarding claim 18, this claim has similar limitations as claim 1. Therefore, it is rejected under Sturm for the same reasons set forth in the rejection of claim 1.

Regarding claim 19, this claim has similar limitations as claim 1. Therefore, it is rejected under Sturm for the same reasons set forth in the rejection of claim 1.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

5. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sturm.

Regarding claim 19, Sturm discloses all claimed limitations, except (1) a random pattern generating section, and (2) an identification signal generating section.

One skill in the art would recognize the advantage of having separate means as (1) and (2) for providing explanations to circuitries that perform functions taught by Sturm such as (i) sending comma codes occasionally (random) to maintain word synchronization, and (ii) the receiver characterizes whether the received code groups as belonging either to the set of data code-groups or the set of special code groups in the 8b10b code.

It would have been obvious to one of ordinary skill in the art, at the time invention was made, to employ (1) a random pattern generating section, and (2) an identification signal generating section into the system of Sturm for providing means to send comma codes to the receiver and for identifying which code groups has been received at the receiver for further processing.

***Allowable Subject Matter***

6. Claims 13-14, 16-17, and 20-21 are objected to as being independent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

*Conclusion*

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chow et al. ( US 6,269,081); Myers et al. (US 2002/0131125) are cited to show a transmission method and transmission system as well as communications device, which is considered pertinent to the claimed invention.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Ho whose telephone number is (571) 272-3147. The examiner can normally be reached on Monday through Friday from 7:00 am to 3:30 pm.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (571) 272-3155.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner

Duc Ho

05-17-05

